

# Designing an Evaluation of a Tertiary Preparatory Program within the University Context

Ravinesh Deo

[ravinesh.deo@usq.edu.au](mailto:ravinesh.deo@usq.edu.au)

**Abstract:** This article presents the design of an evaluation of a tertiary preparatory program within the university context. The paper demonstrates some of the essential elements of effective program evaluations. An evaluation of a teaching and learning program has several benefits. The outcomes may create a deeper understanding of the learners' and instructors' satisfaction with new or existing programs, help academics assess the development of their students' motivation for studies, provide strategic direction for development of new knowledge and career skills and gather evidence on whether the learners can apply knowledge through behavioural changes, self-directed learning and setting their career paths.

## Introduction

The evaluation of an academic program is a useful element of the educational experience (Musal, Gursel, Ozan, Taskiran, & Van Berkel, 2006). An evaluation examines the success of an educational event, syllabus design, content, implementation or achievement of objectives (Worthen & Sanders, 1987). In general, it assesses the merits of a product, a program or a practice (Wiersma, 2000). The outcomes enable practitioners to gather evidence on whether their actions and decisions are appropriate and fulfil the aims of their academic institutions (Groundwater-Smith, Ewing, & Le Cornu, 2006). The process is conducted using a multi-faceted, systematic approach by focussing on the design, implementation and effectiveness of the program (Chelimsky, 1989).

The Open Access College at the University of Southern Queensland designed a tertiary teaching and learning program known as the "Preparatory Program in Schools". This program is designed for Year 11 students to complete a set of tertiary courses during their final school years. With a commitment to supporting students who are not able to make informed decisions about career paths, the program creates avenues for different career options (Kelly, 2009). As with any new program, there is a need for an assessment of the quality and an opportunity for identifying the components that may require improvement (Morrison, 2003). The outcomes can have substantial impacts in several areas relevant to the success of the program such as policy development, decision-making, funding and partnerships between the tertiary institution and community. The outcomes may help identify challenges faced by first year students in adapting to university teaching and learning environments and promote confidence that programs are being monitored, reviewed, modified and researched, to increase their beneficial impacts (Aubel, 1999).

This article presents an evaluation of the Preparatory Program in Schools. The evaluation outcomes will identify a range of issues that may be relevant for improving the service delivery of the College. Due to specific nature of a tertiary preparatory program which targets the underprivileged low achieving school leavers, there may be a limitation on generality of the results. Hence the evaluation acts as a case study to be used as a basis for future studies. The scope is limited, in the sense, that it presents the plan of an evaluation that is in the developmental phase. Since real evaluations are time-consuming, expensive or may affect the work of professionals and organisations, this article presents an example of a plan that may be modified prior to its final implementation.

## Background

### Challenges during First Year of Tertiary Study

High school leavers face significant challenges during the first year of tertiary study. Among several other factors, lack of prior exposure to tertiary teaching and learning environments makes the transition to university problematic for graduating school students (Hillman, 2005). This was exemplified by the 2002 national attrition rates of 28.6% for the first year tertiary students. In Queensland, a higher rate of 31.1% was reported. However, after students had completed their first year at university, attrition rates dropped to 10.0% nationally, and 11.5% in Queensland (DETA, 2004). As identified by Peel (1999), some of the challenges are; inadequate preparation

for the independent learning styles at tertiary institutions, gaps between the course structures and academic expectations of tertiary institutions and schools, an expectation that tertiary institutions will deliver life changes, academically, socially and intellectually, and the diversity of teacher and pastoral care relationships that students have with their teachers in a school setting relative to a more formal academic relationship with university lecturers. Lowe and Cook (2003) reported that about 20% of students are not able to adjust to the academic and social demands of a university. Hillman (2005) found that students from low socio-economic backgrounds have difficulties in balancing between work and study commitments. Embedded within these factors is poor motivation that can lead to a diminishing of interest in studying (Charlton, Barrow, & Hornby-Aitkinson, 2006).

## **Preparatory Program in Schools**

The Bradley Review was a comprehensive examination of Australia's higher education sector. It incorporated recommendations on encouraging participation of persons from low socio economic backgrounds in higher education. It focussed on enhancing partnerships between schools, institutions and communities through outreach activities. Active partnerships in low socio-economic regions are encouraged by the Commonwealth Government to help communities realise the importance of higher education. The Government has declared that by 2020, 20% of tertiary enrolments are expected to be from low socio-economic regions (Bradley, Noonan, Nugent, & Scales, 2008). The College has a commitment to social inclusion for supporting students who are unable to make informed decisions about prospective careers. The College provides pathways for students who for social, economic or cultural reasons may be missing out on further education opportunities. The Preparatory Program in Schools creates an alternative pathway for Year 11 students to complete two tertiary level courses during their final school years. The program is designed to increase the participation of students from Ipswich and Moreton regions, as both are identified as Socio Economic Disadvantaged (Australian Bureau of Statistics, 2006) where only 35.7% and 19.4% respectively, of Year 12 students enter tertiary institutions (DETA, 2008).

The program incorporates two core courses, TPP7110 (Orientation to Tertiary Study) and TPP7180 (Preparatory Mathematics). They are designed to assist students to (i) build mathematical foundations as well as reading, writing and basic research skills, (ii) prepare for tertiary studies by providing a taste of the university teaching and learning environment, and (iii) secure 2 Queensland Certificate of Education points that may be used for admission to university. The program provides career counselling, exposure to an enriching and a meaningful tertiary experience encourages intellectual curiosity about further studies and helps to make informed decisions about future careers (Kelly, 2009). The program commences after the Easter Break, when students have settled into the new academic year. It runs from April to November principally by means of workshops. The staff and participating schools collaborate to identify a practical slot in the school timetable to schedule the program. The delivery is varied between on-campus mode (14 Workshops on fortnightly Thursdays between 4-6 pm, April – November), mixed mode (on campus workshops plus online tutor-led sessions delivered by trained secondary school staff) and online mode plus tutor-led sessions delivered by trained school staff.

## **Designing a Program Evaluation**

### **Selecting an Appropriate Model**

The approach for evaluating an academic program may be objective-oriented (fulfilling a particular objective), expertise-oriented (examining the availability of expertise), management-oriented (assisting in decision-making) or naturalistic/participant-oriented (examining the participants' characteristics) (McNeil, 1996). According to Worthen and Sanders (1987), institutions should weigh the benefits of evaluation models in order to adopt an institution-specific model that can satisfy the purpose of their evaluation. Since this evaluation is expected to serve a number of purposes, we propose a mixed model whose choice is based around four objectives: (a) To assess attainment of educational standards by the participants, (b) to investigate how effectively the participants have integrated into a tertiary learning environment, (c) to determine whether the participants have experienced increases in motivation for tertiary study, and (d) to assist the participants in setting up a prospective career path. To fulfil these, the evaluation will apply systematic research to assess the design, implementation and quality of the educational experience (Chelimsky, 1989) by using a combination of the four models.

### **Rationale for an Evaluation**

It is a useful practice that teaching and learning programs are evaluated regularly so that outcomes are implemented in parallel with different learning activities. This approach will assess the learners' and instructors' satisfaction with the program, provide an understanding of the students' motivation for studies and development of life skills, and provide evidence whether the learners can apply new knowledge through behavioural changes, self-directed learning and setting a career path. The purpose of the evaluation is to assess the educational quality of the program. Since the program is fairly new, undertaking an evaluation at the beginning will identify areas for improvement (Morrison, 2003). The evaluation will determine the learners' and instructors' satisfaction with the program and assess the increases in motivation for study, communication and mathematical skills.

The successful trial of the program as an initial project at USQ's Springfield Campus attracted strong interest from regional schools. Based on the Bradley Review, it is envisaged that the Government will be providing significant funding to reward institutions for projects which enrol students from low socio-economic backgrounds through partnership programs. This funding is expected to be about \$135 million per calendar year (Bradley, et al., 2008). Undertaking a program evaluation will generate research-based evidence of its efficacy that may assist in seeking future funds. The results may be used to examine whether there is support for the initiative from schools across the three campuses. This will help when considering expanding the project into other areas. The option to deliver the program as a distance education initiative will enable the College to offer the course online, but opportunities may exist to make use of Learning Hubs and utilize networked learning technologies. This program evaluation may help create more opportunities for growth in these areas.

### **The Stakeholders and Desired Impacts of Evaluation**

Stakeholders are those who have a vested interest in a program (Gold, 1983). This program is led by three dedicated staff, one of whom will be teaching TPP7110, another who will be teaching TPP7180 and a Project Coordinator. The teaching staff play a pivotal role in ensuring smooth delivery of the program. They will make necessary modifications as required in order to enhance the attainment of objectives (a-d). The Project Coordinator is an administrator, who liaises with schools, students and parents to educate them about the program and recruit the candidates. The interviews for recruitment will be conducted between a school representative, a College staff and the student. The process will engage the parents of the participants whose consent will be sought to allow their child to attend the university after school hours. The College will facilitate the program by providing appropriate resources. The involvement of stakeholders as decision-makers and information users contributes to greater relevance and applicability of outcomes (Brandon, 1999).

Being a relatively new program, the outcomes are expected to have impacts on the professional development of staff, cause improvement in service delivery, determine the sustainability of the program, create strategic approaches for enhancing students' adaptation to university and increase student self-confidence for further studies. The outcomes may contribute to decision making, policy formulation and allocation of monetary resources as well as be a management tool for improving overall efficacy (Milakovich & Gordon, 2001). The success of the program will help attract Government funding by generating evidence that the program makes a difference to the community. The evaluation will create credibility in robustness of the program and evidence that programs are being monitored, reviewed and researched to increase the beneficial impacts on the students.

### **Acquisition of Data**

Since the program runs over two semesters, an evaluation will be undertaken between April-November. During this period, three evaluation questions will be addressed.

*Question 1:* What are the effects of the program on motivation for studies, development of communication and mathematical skills and decision-marking on prospective career paths? This question will assess (i) changes in learning profiles (mathematical reasoning and communication), (ii) increases in motivation for studies and commitment towards action-planning and scheduling study activities, and (iii) integration into the university teaching and learning environment. The evaluation will employ a mixed-method approach for data collection.

- a) *Academic Performance:* The program courses consist of four assignments. Based on attainments in each assignment, marks will be used to determine how well students are adjusting to the university learning environment. The performance will be monitored continuously to ensure that any specific trends in learning attributes are recorded progressively. Assignments also incorporate "learning diaries" and "summative essays" that examine whether students are devising plans for future careers.
- b) *Weekly Journal Entries:* As part of their non-graded assessment, all students will submit a weekly journal. The journal entries will provide students with an opportunity to self-assess their learning

journeys and the freedom to provide their own perspectives on the program. The journal entries will provide information that is unique to the individual student (personal learning attributes).

- c) *Covert Observations*: Covert observations will be used to collect data on student's learning profiles within their natural learning environment (i.e. the classroom). The facilitator will observe the learning behaviours (e.g. participation in learning activities) to allocate a rating on a numerical scale from 1-10. The frequency of this exercise will be weekly.
- d) *Focus Groups*: A pre-defined number of student-focus groups will be set up. The groups will operate twice a semester to stimulate discussion among students on a set of topics from each course. The discussions will examine their study management techniques and problem solving abilities.

*Question 2*: What are the effects on the professional development of College staff? Consideration will be given to obtaining staffs' general perceptions on success of the program. This question will reveal any major challenges the institution might be facing in program delivery. It will examine whether the program is having a positive impact on staffs' professional development by providing insights into any pedagogical tools that they might develop. This question will employ two methods of data collection.

- a) *Staff Surveys*: The staff will describe their general experiences on the effectiveness of the program. This exercise will be conducted twice at 6 monthly intervals.
- b) *SWOT Analysis*: This is a useful tool for self-assessment about a particular program (Adepoju & Famade, 2010). The staff will conduct a SWOT analysis in relation to their roles and achievements. The analysis will be based around four main tenets.
  - i) Strengths (Internal): identify any new learning tools and pedagogical skills that staff might have developed over the duration of the program.
  - ii) Weakness (Internal): identify challenges such as anxiety with the "new" cohort or confusion related to diversity in students' learning attributes.
  - iii) Opportunities (External): examine what other opportunities are available such as ICT training, flexible delivery options or local learning hubs.
  - iv) Threats (External): assess constraints such as study, workloads or administrative duties. This exercise will be conducted twice at 6 monthly intervals.

*Question 3*: To what extent did the program succeed in attracting community confidence? This question recognises the role of the community and their participation in decision-making (McNamara, 2006) through:

- a) *Parent-Teacher Interviews*. A random batch of parents will be invited for an interview on a monthly basis. The interview will determine whether there is growing community support for the initiative.
- b) *Influences Questionnaire*. A survey will be conducted at the end. This survey will be based on an influences questionnaire (Taylor & Bedford, 2004) where a series of questions will be centred on factors that might influence a parent in withdrawing their child or continuing with the program by asking to indicate on a scale of 1 to 5 (1= not at all interested, 2= slightly interested, 3= not sure, 4= moderately interested and 5= extremely interested).

The validity and reliability of data will be taken into account. The multi-modal method for data collection and merging of results from different sources can lead to a more valid, reliable and diverse construction of realities (Patton, 1997). Student dropout can threaten the validity of data as a reduction in student numbers can produce a bias in results. The outcomes will compare characteristics of those students who have dropped out with those who remain. If the two groups are found to be not significantly different in terms of characteristics, we could conclude that dropouts did not affect the result (Heckman, Smith, & Taber, 1998). We ensure reliability by using naturalistic methods of data collection (e.g. covert observations) (Lynch, 1996). The evaluation uses well-defined and systematic procedures that may be replicated thus ensuring the reliability of the evaluation.

## **Some Ethical Factors for Consideration**

Prior to an evaluation, ethical issues are to be taken into account in order to avoid harm to the participants and institution (Sanderson & Mazerolle, 2008). Appropriate ethical clearance will be sought from University Ethics Committee. As an approval for ethical application can be a lengthy process, this article is currently limited to a proposal stage of an evaluation plan which will be developed into a fully functional evaluation. In conducting research in social science, informed consent is a fundamental of ethical conduct (Evans & Jakupiec, 1996). This evaluation will apply the principle of informed consent by ensuring that all participants are well educated about the evaluation, its purpose and potential benefits (Wiles, Crow, Heath, & Charles, 2006). This will be put into practice by running an induction session prior to the evaluation. The evaluation will ensure confidentiality of all information by using pseudonyms to avoid the disclosure of actual names (Richards & Schwartz, 2002). To avoid loss of life-time opportunities, such as falling behind contemporaries, being graded as unsuccessful or losing their career as an outcome of the evaluation (Israel & Hay, 2006), no part of the results will be used to process admission of students into other academic programs. The findings will not be disclosed to any third

party that may limit the student's equitable access to such opportunities. Care will be taken to avoid psychosocial consequences such as loss of self-esteem, self-concept or confidence (Bibby, 1997). This will be done by ensuring that academically challenged students' cognitive limitations are not exposed. Privacy will be recognized (Sharp, 1994) by granting freedom to the participants to deny responses to any particular question. The descriptions of characteristics that make it possible to discover the subject's identity will be concealed. Cultural sensitivity will be exercised to protect identities of communities and cultural denominations (Hafford & Lyon, 2007). The outcomes will be used for research only, with a guarantee that disclosure will not affect any individual. The data will be secured by deleting subject identifiers and using security devices such as passwords.

## Reporting Back

The outcomes will be communicated via (i) *Progress Reports*: The teaching staff will produce fortnightly reports on notable changes in their students' learning profiles (motivations, learning patterns, preferences, academic performances) which will be cross-examined by a third person. Should a report demonstrate specific learning patterns in a discipline (e.g. reasonable progress in one subject but relatively weak progress in another), learning support will be provided. (ii) *Newsletters*: The applicability of evaluation outcomes may be increased by active involvement of all stakeholders (Patton, 1997). The benefits of involving different stakeholders in all phases include sensitizing the outside evaluator to the local program context and improving the accuracy of findings (Torres, Preskill, & Piontek, 2005). The parents and school will be sent a monthly newsletter advising them of the general progress but ensuring that no specific results are disclosed to students while the program is running to avoid a potential bias due to "Hawthorne effect" (Kuper, Lingard, & Levinson, 2008). Parents will have freedom to contact the College about any concerns regarding the progress of their child. (iii) *Consultative Meetings*: To ensure that results are communicated on ongoing basis, reports will be discussed in monthly consultative meetings. (iv) *General Assembly*: All information will be merged into a master document for a comprehensive assessment of overall outcomes. This document will be tabled in a College general assembly to gather insights into the strategic course of actions such as restructuring the program, providing professional development opportunities for College or promoting the program across the wider community.

## Conclusion

The current plan has limitations in terms of scope and outcomes. However, the purpose is to obtain reliable information to construct genuine conclusions within the limits of the plan. Some limitations of the evaluation are (i) *Conditional conclusions*: Social research assumes uncertainty in its conclusions (Yeaton & Camberg, 1997). Thus the outcomes may be true under specific conditions relevant to the program that are couched in probabilities rather than absolute certainty. (ii) *Timeframe*: The proposed timeframe may not be adequate to conduct a comprehensive assessment. In early phase, student enrolment might be smaller than is required for a robust statistical interference of the results (Valentine & Cooper, 2003). (iii) *Predisposition*: Candidate selection will be based on an interview so all the interested students will be eager to join. This may attract those who are predisposed to a positive outcome (e.g. being able to adjust to new environment). If so, simply measuring changes in learning profiles will overstate the achievements of this objective as some students might already possess characteristics that enable them to adjust easily to a new learning environment (Rossi, Freeman, & Lipsey, 1999). (iv) *Maturation*: The evaluation does not take into account effects of maturation. Events outside the program may cause changes in participants' knowledge or behaviours (Thompson & McClinrock, 2005). This evaluation assesses changes in knowledge, so the growth of student abilities in these areas due to maturation over the period cannot be quantified to separate the role of the two. As such, a positive outcome due to maturation may be treated as a *plus* of the program rather than due to an external influence. To take into account such uncontrolled variables, it is advisable to extending the evaluation into a long-term study, say over a two-five year period to increase statistical validity of the results.

## References

- Adepoju, T. L., & Famade, O. A. (2010). The application of strengths, weaknesses, opportunities and threats analysis for managing vocational and technical education programmes for improved efficiency in Nigeria. *Educational Research and Reviews*, 5(7), 354-361.
- Aubel, J. (1999). *Participatory Program Evaluation Manual: Involving Program Stakeholders in the Evaluation Process* (2nd ed.). USA: Child Survival Technical Support Project.
- Australian Bureau of Statistics. (2006). *Socioeconomic indexes for areas*. Retrieved April 20, 2011, from [http://www.abs.gov.au/websitedbs/D3310114.nsf/home/Seifa\\_entry\\_page](http://www.abs.gov.au/websitedbs/D3310114.nsf/home/Seifa_entry_page).

- Bibby, M. (1997). Introduction: Education research and morality. In M. Bibby (Ed.), *Ethics and education research (Review of Australian research in education no. 4)*. Melbourne, Vic: Australian Association for Research in Education.
- Bradley, D., Noonan, P., Nugent, H., & Scales, B. (2008). *Review of Australian Higher Education*. Retrieved April 27, 2011, from [http://www.deewr.gov.au/HigherEducation/Review/Documents/PDF/Higher%20Education%20Review\\_one%20document\\_02.pdf](http://www.deewr.gov.au/HigherEducation/Review/Documents/PDF/Higher%20Education%20Review_one%20document_02.pdf).
- Brandon, P. R. (1999). Involving program stakeholders in reviewing evaluators' recommendations for program revisions. *Evaluation and Program Planning*, 22(3), 363-372.
- Charlton, J. P., Barrow, C., & Hornby-Aitkinson, P. (2006). Attempting to predict withdrawal from higher education using demographic, psychological and educational measures. *Research in Post- Compulsory Education*, 11(1), 31-47.
- Chelimsky, E. (1989). *Program Evaluation: Patterns and Directions*. Washington, DC: American Society for Public Administration.
- DETA. (2008). *Next step 2008: A report on the destinations of year 12 completers from 2007 in Queensland*. Queensland: Department of Education, Training and the Arts.
- Evans, T., & Jakupiec, V. (1996 ). Research ethics in open and distance education: Context, principles and issues. *Distance Education*, 17(1), 72-94.
- Gold, N. (1983). Stakeholder and program evaluation: characterisations and reflections. In A. S. Bryk (Ed.), *Stakeholder-based evaluation: New directions for program evaluation* (pp. 63-72). San Francisco: Jossey-Bass.
- Groundwater-Smith, S., Ewing, R., & Le Cornu, R. (2006). *Teaching: Challenges and Dilemmas* (3rd ed.). Sydney: Thompson.
- Hafford, C., & Lyon, K. (2007). *The Challenges of Conducting Evaluation in Tribal Communities*. Washington, D.C: Office of Family Assistance.
- Heckman, J., Smith, J., & Taber, C. (1998). Accounting for dropouts in evaluations of social experiments. *Review of Economics and Statistics*, 80(1), 1-14.
- Hillman, K. (2005). *The first year experience: The transition from secondary school to university and TAFE in Australia*. Victoria, Australia: Australian Council for Educational Research.
- Israel, M., & Hay, L. (2006). *Research ethics for social scientists: between ethical conduct and regulatory compliance*. London: Sage.
- Kelly, M. (2009). *Tertiary Preparation Programs in Schools: An Evaluation of Pilot Program*. Dissertation for Postgraduate Diploma in Psychology, Central Queensland University.
- Kuper, A., Lingard, L., & Levinson, W. (2008). Qualitative Research Critically appraising qualitative research. *British Medical Journal*, 337, a1035
- Law, H., & Cook, A. (2003). Mind the gap: are students prepared for higher education?. *Journal of Further and Higher Education*, 27(1), 53-76.
- Lynch, B. (1996). *Language program evaluation*. Cambridge: Cambridge University Press.
- McNamara, C. (2006). *Field Guide to Nonprofit Program Design, Marketing and Evaluation* (4th ed.). Minnesota: Authenticity Consulting.
- McNeil, J. D. (1996). *Curriculum: A Comprehensive Introduction* (5th ed.). Los Angeles: Harper Collins College Publishers.
- Milakovich, M. E., & Gordon, G. J. (2001). *Public Administration In America*. Boston: Bedford/St Martin.
- Morrison, J. (2003). ABC of learning and teaching in medicine. *British Medical Journal*, 326, 385-387.
- Musal, B., Gursel, Y., Ozan, S., Taskiran, H. C., & Van Berkel, H. (2006). The Satisfaction Levels of Students on Academic Support and Facilities, Educational Activities and Tutor Performance in a PBL Program. *The Journal of the International Association of Medical Science Educators*, 16(1), 1-8.
- Patton, M. Q. (1997). *Utilization-focused evaluation: the new century text* (3rd ed.). Thousand Oaks, California: Sage.
- Peel, M. (1999). Where to now? Transition from Secondary to Tertiary: A Performance Study *Higher Education Series* (Vol. 36, pp. 13-16).
- Richards, H. M., & Schwartz, L. J. (2002). Ethics of qualitative research: are there special issues for health services research? . *Family Practice*, 19(2), 35-39.
- Rossi, P. H., Freeman, H. E., & Lipsey, M. W. (1999). *Evaluation: A systematic Approach*. London: Sage.
- Sanderson, J., & Mazerolle, P. (2008). *An evaluation of the book*. Retrieved April 27, 2011, from [http://www.fpq.com.au/pdf/EGB\\_Survey.pdf](http://www.fpq.com.au/pdf/EGB_Survey.pdf).
- Sharp, C. A. (1994). What is Appropriate Evaluation? Ethics and standards. *Evaluation News & Comment*, 3(2), 34-41.
- Taylor, J.A., & Bedford, T. (2004). Staff perceptions of factors related to non-completion in higher education. *Studies in Higher Education*, 29(3), 375-394.
- Thompson, N. J., & McClintock, H. O. (2005). *Demonstrating your program's worth: A Primer on Evaluation for Programs to Prevent Unintentional Injury*. Retrieved April 27, 2011, from <http://www.cdc.gov/ncipc/pub-res/dypw/>.
- Torres, R. T., Preskill, H., & Piontek, M. E. (2005). *Evaluation Strategies for Communicating and Reporting: Enhancing Learning in Organizations*. Thousand Oaks, CA: Sage.
- Valentine, J. C., & Cooper, H. (2003). *Effect size substantive interpretation guidelines: Issues in the interpretation of effect sizes*. Washington, DC: What Works Clearinghouse.
- Wiersma, W. (2000). *Research Methods in Education: an introduction*. Needham Heights, MA: Pearson Education.
- Wiles, R., Crow, G., Heath, S., & Charles, V. (2006). Anonymity and Confidentiality *ESRC National Centre for Research Methods, NCRM Working Paper Series* (Vol. 2/06.).
- Worthen, B. R., & Sanders, J. R. (1987). *Educational Evaluation. Alternative Approaches and Practical Guidelines*. New York: Longman.
- Yeaton, W., & Camberg, L. (1997). *Program Evaluation for Managers*. Retrieved April 27, 2011, from <http://www.hsrd.research.va.gov/publications/internal/ProgEval-Primer.pdf>.